

WHAT IS CLAIMED IS:

1. A method of modulating an immune system response to an antigen in a mammal, said method comprising administering to said mammal a particle-free therapeutic comprising a hyaluronic acid polymer analogue covalently linked to at least one peptide that comprises a T cell epitope recognized by an MHC molecule of said mammal, wherein said T cell epitope is defined by a sequence of at least 5 about eight amino acids of said antigen.
2. The method of Claim 1 wherein said T cell epitope is recognized by an MHC Class I molecule and by a CD8⁺ T cell of said mammal.
- 10 3. The method of Claim 1 wherein said T cell epitope is recognized by an MHC Class II molecule and by a CD4⁺ T cell of said mammal.
4. The method of Claim 2 wherein said immune system response comprises a cytotoxic T lymphocyte that recognizes said antigen.
- 15 5. The method of Claim 2 wherein said immune system response comprises a CD4⁺ T cell that recognizes said antigen.
6. The method of Claim 1 wherein said immune system response comprises an antibody that recognizes said antigen.
7. The method of Claim 1 wherein said immune system response to said antigen is increased after administration of said conjugate.
- 20 8. The method of Claim 7 wherein said antigen is an antigen of a pathogenic agent or a tumor cell.
9. The method of Claim 3 wherein said immune system response to said antigen is decreased after administration of said conjugate.

10. The method of Claim 9 wherein said antigen is an antigen of a tissue or organ transplanted to said mammal.

11. The method of Claim 1 wherein said step of administering further comprises administering a plurality of conjugates each comprising at least one peptide that comprises a T cell epitope recognizable by an MCH molecule linked to a hyaluronic acid polymer analogue wherein the peptides of at least two such conjugates are different.

12. A method of improving MHC presentation of a T cell epitope of an antigen in a mammal comprising administering to said mammal a conjugate comprising particle-free hyaluronic acid polymer analogue covalently linked to a peptide that comprises a T cell epitope recognized by an MHC molecule of said mammal, wherein said T cell epitope is defined by a sequence of at least about eight amino acids of said antigen.

13. A pharmaceutical composition for administration to a mammal for improving MHC presentation of a T cell epitope of an antigen in said mammal, said composition comprising a conjugate comprising particle-free hyaluronic acid polymer analogue covalently linked to a peptide that comprises a T cell epitope recognized by an MHC molecule of said mammal, wherein said T cell epitope is defined by a sequence of at least about eight amino acids of said antigen.

20 14. A composition of matter comprising particle-free hyaluronic acid polymer analogue covalently linked to at least one peptide comprising a T cell epitope recognized by an MHC molecule of a mammal.